REMARKS/ARGUMENTS

Applicants have received the Office Action dated March 17, 2008 (hereinafter "Office Action"), wherein: 1) claims 1, 21, 41, 61, 81, and 101 were rejected for allegedly failing to comply with the written description requirement under 35 U.S.C. § 112, 1st paragraph; and 2) claims 1, 2, 6-22, 26-42, 46-62, 66-82, 86-101 and 103-105 were rejected under 35 U.S.C. § 103(a) as allegedly obvious over Yamada et al. (U.S. Patent No. 7,203,762, hereinafter "Yamada") in view of Munter (U.S. Patent No. 7,209,659, hereinafter "Munter"), and further in view of Battle et al. (U.S. Patent No. 7,088,762, hereinafter "Battle"). Applicants have not amended the claims. Based on the arguments presented herein, Applicants respectfully submit that all claims are in condition for allowance

I. THE WRITTEN DESCRIPTION REJECTIONS

In the rejection of claims 1, 21, 41, 61, 81 and 101 under 35 U.S.C. § 112, 1st paragraph, as allegedly failing to meet the written description requirement, it was stated that,

> In claims 1, 21, 41, 61, 81 and 101 applicant claims that all ports are operating at the same rate. The original submitted specification at the time of filing does not describe any such requirement or describe the use, advantage, or necessity of having all ports at the same rate. Page 18 of specification submitted on 10/31/2003 states balancing traffic that includes communication paths having different bandwidths. This clearly contradicts the claimed subject matter. Therefore the examiner considers the amended claim feature as new matter since there is no support in the submitted specification for the amended claim feature.[1]

Applicants respectfully traverse the rejection, noting that the claim element in question is supported by material included in patent application 09/872,412 (hereinafter the "'412 Application"), which is incorporated by reference within the specification of the subject Application as originally submitted and published (hereinafter "Specification").[2] The relevant passages of the '412 Application make it clear that one of the four prerequisite conditions for trunking a port is that the port must operate at the same rate as the trunk master of interest.[3]

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[1] Office Action, ¶ 2, p. 3.
[2] *See* Specification, ¶ [0024].
[3] "In FIG. 5, a determination 502 (shown in broken line) is made as to whether an E_Port A can be trunked with a particular existing trunk master port, E_Port B, according to a set of four conditions to be described subsequently in more detail. … Second, a determination must be made as to whether 506 the E_Port A runs at the same link speed

Applicants further respectfully note that the independent claims each requires that all corresponded ports operate at the same speed, not "all ports" as alleged in the Office Action. Applicants therefore respectfully submit that the amendment to the claim adding the element "wherein said corresponded ports all operate at the same rate" to each of independent claims 1, 21, 41, 61, 81 and 100 does not add any new matter, as alleged in the Office Action.

Applicants further respectfully note that the text from the Specification cited in the Office Action merely describes one of several possible embodiments and does not contradict the claimed subject matter. The full text from the Specification referenced in the rejection reads,

> Of course as previously suggested, the claimed subject matter is also not limited in scope to employing trunking. In an alternative embodiment, for example, a technique for balancing frame traffic in a network that includes communication paths having different bandwidths may be employed.[4]

Applicants respectfully submit that the cited text clearly recites an embodiment that includes communications paths with different bandwidths (and thus rates) as an alternative embodiment to at least some of the embodiments otherwise described in the Specification. Applicants respectfully submit that this description of an alternative embodiment does not act as a contradiction, and does not alter the fact that the claims, as amended, are properly supported by the Specification under § 112, 1st paragraph for at least the reasons described above.

For at least these reasons, Applicants respectfully submit that the claim element "wherein said corresponded ports all operate at the same rate" of claims 1, 21, 41, 61, 81 and 101 is properly supported by the Specification as required under 35 U.S.C. § 112, 1st paragraph, and further respectfully submit that said claim element is not contradicted by the Specification. Applicants therefore respectfully request withdrawal of the written description rejections of claims 1, 21, 41, 61, 81 and 101.

(e.g., 2Gbps, or 1Gbps) as the trunk master of interest." '412 Application, p. 26-27, lines 2-5 of ¶ [0065] and lines 1-2 of ¶ [0067].

[4] Specification, lines 1-6 of ¶ [0040] (emphasis added).

II. THE OBVIOUSNESS REJECTIONS

a. The Independent Claims

In rejecting independent claim 1 under 35 U.S.C. § 103(a) as allegedly obvious over Yamada in view of Munter and further in view of Battle, it was stated in the Office Action that Yamada teaches, among other things, a method that includes "applying a correspondence between plurality of logical ports and a plurality of physical ports of a switch **[Fig. 6, Virtual sending ports & MPLS-SIDE physical ports]**."[5] Applicants respectfully traverse both the implicit characterization of the claim and the characterization of the cited art, noting that independent claim 1 requires at least one logical port that corresponds to a plurality of physical ports to form a trunked group, and further noting that Yamada only teaches a one-to-one correspondence between a virtual port and a physical port.

Applicants respectfully note that independent claim 1 requires "applying a correspondence between a plurality of logical ports and a plurality of physical ports of a switch, at least one logical port having corresponded a plurality of physical ports to form a trunked group" (emphasis added). Applicants respectfully submit that it is clear from the above citation that claim 1 requires not just a correspondence "between plurality of logical ports and a plurality of physical ports" as stated in the Office Action, but that the correspondence is required to be between a single logical port and two or more (*i.e.*, a plurality of) physical ports.

By contrast, Yamada teaches,

> According to the present invention, the communications system controls the flow of frames by using the concept of "physical ports," "logical sending ports," and "virtual sending ports." "Physical ports" refer to physical interfaces to which the transmission cables are attached. A physical port accommodates a plurality of communication channels, each of which is called a "logical sending port." Normally, these two kinds of ports suffice for the systems without traffic engineering functions because there is one-to-one static correspondence between physical ports and logical sending ports (i.e., LSPs are uniquely identified). However, in the case where the traffic engineering functions are supported, one given logical sending port may be **either** of a plurality of physical ports (or a plurality of LSPs). It is therefore necessary for the system to determine **which** physical port (or which LSP) to use, in an indirect fashion. The concept of "virtual sending port" is introduced to solve the above issue. That is, an appropriate virtual sending port is chosen in the course of traffic engineering operations for each

[5] Office Action, ¶ 4, p. 3 (bolding in original).

> frame, which is then mapped onto a **specific** physical port. The present invention actually uses virtual sending ports as a standard way of designating communication ports, regardless of the use of traffic engineering functions.[6]

Applicants respectfully submit that it is clear from the above text that the virtual sending port taught by Yamada only corresponds to a specific (*i.e.*, single) physical port, and thus Yamada does not teach or even suggest a logical port corresponded to (*i.e.*, equivalent to) a plurality of physical ports, as required by claim 1. For at least these reasons, Applicants respectfully submit that Yamada does not teach or suggest all of the limitations of the independent claim 1. Further, none of the cited art, either alone or together, overcomes the deficiencies of Yamada.

Applicants further respectfully note that the rejection of independent claim 1 fails to take into account the claim element, "wherein said corresponded physical ports can be any of said plurality of physical ports exiting said switch" (emphasis added). Applicants respectfully submit that Yamada does not teach or suggest this claim element. More specifically, Applicants respectfully submit that Yamada only teaches corresponding the virtual sending ports with some of the physical ports exiting a node, *i.e.*, the MPLS-side physical ports. More specifically:

> (S23) The path data manager 13 extracts information from the L1 mapping table T6, which gives a particular MPLS-side physical port that is associated with the virtual sending port determined in step S22.
> (S24) The labeling unit 14 adds to the frame an L1 label relevant to the MPLS-side physical port and sends out the resulting MPLS frame F to the associated L1 LSP, thus delivering the frame over the MPLS network 5.[7]
>
> and,
>
> Based on the above results, the path data manager 13 finds an MPLS-side physical port that is associated with the virtual sending port "101" determined above, consulting an L1 mapping table T6 (not shown).[8]

Applicants further respectfully submit that one of ordinary skill in the art would recognize that the virtual sending port taught by Yamada is part of a mechanism used to control traffic (using a traffic engineering (TE) unit) being transmitted into a core multi-protocol label-

[6] Yamada, col. 14, lines 10-33 (emphasis added).
[7] Yamada, col. 11, lines 33-40 (emphasis added).
[8] Yamada, col. 11, line 65 through col. 12, line 1 (emphasis added).

switch virtual private network (MPLS-VPN).[9] It would thus be nonsensical to suggest corresponding the virtual sending ports taught by Yamada to the VPN-side physical ports, given that the VPN-side physical ports are not connected to a core MPLS-VPN. Therefore, at least because Yamada only teaches corresponding the virtual sending ports to the MPLS-side ports of a node, and at least because the remaining VPN-side ports of the node taught by Yamada are not suitable for use in such a correspondence with a virtual sending port, Applicants respectfully submit that Yamada does not teach or even suggest "wherein said corresponded physical ports can be any of said plurality of physical ports exiting said switch." Further, none of the cited art overcomes the deficiencies of Yamada.

With regard to Munter, Applicants respectfully note that Munter only briefly mentions a "logical port link" and "N logical links", specifically:

> Modular switches S1 to S5 should have four, or multiple of four access ports, to connect to four POP switches R1 to R4 through bi-directional trunks 26–29, while distribution points K1 to K4 on OXC 40 should be each provided with five bi-directional links to switches [S1] to S5. For example, switch S1 is connected to POP switches R1 to R4 through four bi-directional port links, or individual optically switchable S-color connections S1R1, S1R2, S1R3, and S1R4. Each **logical port link** S1R1 practically includes a "bundle" of wavelength links which in fact is a bundle of ports.[10]

and,

> Each node has **N logical links** which are wavelength multiplexed onto the single fiber 70. Each node uses the same set of wavelengths, and the function of the optical distribution unit (ODU) 70 is to demultiplex the wavelengths and re-arrange them such that each edge node 51–55 is connected to each core node 61–65.[11]

Applicants respectfully submit that Munter thus teaches collecting together a plurality of logical port links and/or logical links within a single physical link (*i.e.*, a single physical trunk and/or a single physical fiber), which is the exact opposite of what is required by the claim (*i.e.*, at least one logical port having corresponded a plurality of physical ports to form a trunked group).

[9] *See* Yamada, col. 10, lines 4-5 ("The TE unit 12 in the ingress edge node 10 is responsible for control L1 LSP traffic."), and Fig. 7; *see also* col. 4, lines 29-33 ("The two nodes 10 and 20 are located at the ends of a core network 5, which is an MPLS network with multi-protocol label switching capabilities. The proposed system is intended for use in MPLS-VPN environments.").
[10] Munter, col. 5, lines 20-31, and Fig. 4 (emphasis added).
[11] Munter, col. 7, lines 60-65, and Fig. 5 (emphasis added).

Applicants therefore respectfully submit that Munter does not teach or even suggest corresponding at least one logical port to a plurality of physical ports, instead teaching away from this claim requirement, and further respectfully submit that none of the other cited art, either alone or together, overcome the deficiencies of Munter.

At least for all of the above-described reasons, Applicants respectfully submit that none of the cited art, either alone or together, teaches or even suggests all of the limitations of independent claim 1. Applicants therefore respectfully submit that independent claim 1, as well as the claims that depend upon it, are not rendered obvious over the cited art under 35 U.S.C. § 103(a), and respectfully request withdrawal of the obviousness rejections of these claims.

Regarding independent claims 21, 41, 61, 81, and 101, Applicants respectfully note that these claims have limitations similar to those of independent claim 1, and were rejected in the Office Action for reasons similar to those presented in the rejection of independent claim 1.[12] Applicants thus respectfully submit that for at least the same reasons as those presented above with regard to the rejection of independent claim 1, independent claims 21, 41, 61, 81 and 101, as well as those claims that respectively depend upon them, are also not rendered obvious by the cited art (either alone or together) under 35 U.S.C. § 103(a). Applicants therefore respectfully request withdrawal of the obviousness rejections of these claims.

b. The Dependent Claims

With regard to the rejections of dependent claims 2, 6-20, 22, 26-40, 42, 46-60, 62, 66-80, 82, 86-100 and 103-105, Applicants respectfully note that because each of these claims includes all of the limitations of the independent claims upon which they respectively depend, Applicants respectfully submit that these claims are also not rendered obvious under 35 U.S.C. § 103(a) for at least the same reasons as those presented above with regard to independent claims 1, 21, 41, 61, 81 and 101.

Additionally, with regard to the rejection of dependent claim 17, Applicants respectfully note that it was alleged in the Office Action that, "Yamada further teaches a selected physical port is selected based on a source tag and/or a destination tag added to the frame after the frame

[12] *See* Office Action, ¶ 4, pp. 6-7 (claim 21), 7-8 (claim 41), 8-10 (claim 61), 10-11 (claim 81) and 11-12 (claim 101).

enters switch **[Col. 8, lines 8-13]**,"[13] and further alleged that, "The claim requires a selection of physical port based on tag added to the frame after the frame enters the switch."[14] Applicants respectfully traverse the rejection, and respectfully submit that claim 17 has been improperly examined in a piecemeal fashion, resulting in a failure to consider all of the limitations of the claim, and further thus resulting in a failure to examine the claim as a whole.[15]

Applicants respectfully note that claim 17, which depends upon independent claim 1, adds the requirement, "wherein a selected physical port for at least one of said frames exiting said switch is further selected based at least in part on a source tag and/or a destination tag added to said frame after said frame enters said switch" (emphasis added). Thus, the selection required by claim 17 is a further selection that is applied to a port that has already undergone a selection, *i.e.*, the further selection is applied to a port that has already been selected (past tense) in some manner. When the claim as a whole is considered, it is clear that the claim elements of dependent claim 17 are not all taught by Yamada. More specifically, Yamada teaches,

> The address forwarding processor 11 searches the layer-2 routing table T3s to determine whether it has an entry for the received frame's layer-2 destination address (00:aa:bb:01:02:01). If the destination address in question is found, then the address forwarding processor 11 makes the TE unit 12 (described later) look up the layer-2 flow condition table T5 to extract an appropriate virtual sending port. With this virtual sending port (port "100" in the present case), the path data manager 13 consults the L1 mapping table T6 to find a corresponding MPLS-side physical port, which is PM1 in the present context. Based on the above MPLS-side physical port, the labeling unit 14 produces an L1 label for transport over L1 LSP#1, thereby creating an MPLS frame F described earlier in FIG. 2. This MPLS frame F is transmitted to the MPLS network 5 through the MPLS-side physical port PM1.[16]

Yamada thus teaches receiving a frame, extracting a virtual sending port from the received frame, mapping the virtual sending port to a single corresponding physical port, adding a label based upon the mapped physical port, and transmitting the frame to the mapped physical port.

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[13] Office Action, ¶ 4, p. 5 (bolding in original).
[14] Office Action, Response to Amendment, p. 2.
[15] "In determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious." MPEP § 2141.02-I (citing *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983) and *Schenck v. Nortron Corp.*, 713 F.2d 782, 218 USPQ 698 (Fed. Cir. 1983)) (underlining in original).
[16] Yamada, col. 7, line 65 through col. 8, line 13 (emphasis added).

Applicants respectfully submit that there are two possible interpretations of the above-described teaching by Yamada:

1. That the port is selected when mapped.
2. That the port is selected based upon the label added to the frame.

Applicants respectfully submit that if the port is selected when mapped, then the selection is not "based at least in part on a source tag and/or a destination tag added to said frame" (as required claim 17), and further respectfully submit that only one selection is performed, not a "further selection" performed upon an already "selected physical port" (also as required by the claim). If, on the other hand, the port is selected based upon the label added to the frame, then the addition of the label is either the selection itself, or merely a reflection of the results of the mapping of the port; in either case, only a single selection based on a single criterion has been performed, not a "further selection" (different from the previous selection) on an already selected port (again as required by the claim; emphasis added).

For at least these reasons, and in addition to the reasons presented above with regard to dependent claim 17, Applicants respectfully submit that Yamada does not teach or even suggest all of the limitations of the claim. Further, none of the cited art, either alone or together, overcomes the deficiencies of Yamada. Applicants thus again respectfully submit that dependent claim 17 is not rendered obvious under 35 U.S.C. § 103(a), and respectfully request withdrawal of the rejection of the claim.

Applicants further respectfully note that dependent claims 19, 37, 39, 57, 59, 77, 79, 97 and 99 include limitations similar to those of dependent claim 17, and were rejected on grounds similar to those presented in the rejection of claim 17.[17] Applicants thus respectfully submit that dependent claims 19, 37, 39, 57, 59, 77, 79, 97 and 99 are each also not obvious over the cited art under 35 U.S.C. § 103(a) for at least the same reasons as those presented with regard to the rejection of dependent claim 17, and therefore also again respectfully request withdrawal of the rejections of these claims.

[17] *See* Office Action, ¶ 4, p. 5.

CONCLUSION

Applicants respectfully request reconsideration and that a timely Notice of Allowance be issued in this case. Applicants also hereby request a one-month extension of time for consideration of this Response. While Applicants believe that no additional extensions of time or fees are required, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fees required (including fees for net addition of claims) are hereby authorized to be charged to Wong Cabello's Deposit Account No. 50-1922.

Respectfully submitted,

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Filed Electronically

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